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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,318	11/19/2001	Masatsugu Norimoto	1163-0374P	8452

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EXAMINER

MANCHO, RONNIE M

ART UNIT	PAPER NUMBER
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3663

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,318

Applicant(s)

NORIMOTO, MASATSUGU

Examiner

Ronnie Mancho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The applicant is referred to page 2 line 10 of the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art (figs. 6&7, page 1, lines 14 to page 6, lines 1-11).

4. Regarding claim 1 (as best understood), the applicant's admitted prior art discloses a navigation device for vehicle comprising:

a map data providing means for reading map data from a recording medium (page 3, lines 10-21);

a pre-reading process means (page 3, lines 9-21) for:

receiving a destination;

detecting a current position of a vehicle;

determining a route from the current position of the vehicle to the destination

according to the map data provided from the map data providing means;

setting an area of a *first map* (sparsely hatched area of prior art fig. 6. Also see specification, page 17, lines 10-19), corresponding to a first part of the route associated with a first type of road, to a first range in a pre-reading process and *setting an area of a second map* (densely hatched area of prior art fig. 6. Also see specification, page 17, lines 10-19) corresponding to a second part of the route associated with a second type of road, to a second range in the pre-reading process such that map data size of *the area of the second range* is less than map data size of *the area of the first range*, such that the first type of road is indicated by a first road attribute and the second type of road is indicated by a second road attribute, wherein the first type of road differs from the second type of road according to the first road attribute and the second road attribute (specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21), the navigation device further comprising:

data storing means (specification, page 1, lines 24-28, page 17, lines 10-19) for storing both first map data, which corresponds to the first map area set by the pre-reading process means and is provided from the map data providing means, and second map data, which corresponds to the second map area set by the pre-reading process means and is provided from the map data providing means, in the pre-reading process; and

guiding means (specification, page 1, lines 21-23, page 2, lines 19 to page 3) for guiding the vehicle to take the route to the destination according to both the first map and the second map

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which are indicated by both the first map data and the second map data stored in the data storing means.

Regarding claim 2 (as best understood), the applicant's admitted prior art discloses the navigation device according to claim 1, wherein the pre-reading process means further comprises:

road attribute checking means for:

receiving the map data of a map area, which is partitioned into a plurality of map units and includes both the first type of road (see first fig. 2 compared to fig. 6, general road, page 17, lines 10-29, densely hatched area attributed to road links), to which the first road attribute indicating the first type of road is attached, and a second type of road (through way) to which the second road attribute indicating the second type of road is attached, from the map data providing means;

partitioning the route (fig. 2 compared to fig. 6, specification page 17, lines 10+) placed on both the first type of road and the second type of road into a plurality of route links respectively included in one of the map units so as to attach the road attribute indicating the first type of road or the road attribute indicating the second type of road to each route link;

checking whether the road attribute attached to each route link indicates the first type of road or the second type of road;

specifying a first remarked map unit (see fig. 6) including each first remarked route link and one or a plurality of map units placed near to the first remarked map unit in cases where the road attribute attached to the first remarked route link indicates the first type of road;

specifying a second remarked map unit (see fig. 6) including each second remarked route link in cases where the road attribute attached to the second remarked route link indicates the second type of road;

controlling the data storing means to store data of the first remarked map units and data of the map units placed near to the first remarked map units as the first map data; and

controlling the data storing means to store data of the second remarked map units and data of the map units placed near to the second remarked map units as the second map data.

Regarding claim 3 (as best understood), the applicant's admitted prior art discloses the navigation device according to claim 2, wherein the first type of road denotes a general road other than a throughway, and the second type of road denotes a throughway.

Regarding claim 5 (as best understood), the applicant's admitted prior art discloses the navigation device according to claim 2, wherein a second pre-reading process (specification, page 4, lines 12+) is performed by the road attribute checking means to specify one or a plurality of additional map units placed near to the map units which are placed near to the first remarked map unit or the second remarked map unit, and the data storing means is controlled by the road attribute checking means to additionally store data of the additional map units.

Regarding claim 7, the applicant's admitted prior art (page 1, lines 15 through page 6, lines 1-11) discloses a navigation device comprising:

a disk unit for reading data from a recording medium, the data including map data (page 1, lines 15-28);

a data buffer for storing the data read from the recording medium (page 1, lines 15-28);

a vehicle position detecting unit for determining a current position of a vehicle by receiving inputs including global positioning information (page 1, lines 15-28);

a route determining unit for determining a driving route from the current position of the vehicle to a destination, the destination being inputted by a user (page 1, lines 15-28); and

an information processing unit for outputting driving information based on the determined driving route (page 1, lines 15-28), wherein the driving route has a first road type and a second road type (specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21) and is divided into ranges (fig. 6; page 2, lines 19-30), each range receiving an attribute (L1, L2, etc; page 3, lines 22-24) depending on a classification of a road type (see first fig. 2 compared to fig. 6, general road, page 17, lines 10-29, densely hatched area attributed to road links) within the range, and wherein the amount of map data stored (page 1, lines 15-28; page 4, lines 6-19) in the data buffer is dependent on the attribute associated with each range of the driving route.

Regarding claim 8, the applicant's admitted prior art (page 1, lines 15 through page 6, lines 1-11) discloses the navigation device according to claim 7, wherein upon completion of storing the map data, which is dependent on the attribute, in the data buffer, additional data other than map data (page 2, lines 2-18) is stored in a free area of the data buffer.

Regarding claim 9, the applicant's admitted prior art (page 1, lines 15 through page 6, lines 1-11) discloses the navigation device according to claim 7, wherein, depending on the attribute of the range, map data for adjacent ranges is stored in the data buffer.

Regarding claim 10, the applicant's admitted prior art (page 1, lines 15 through page 6, lines 1-11) discloses a method of determining a route for a vehicle in a navigation device, said method comprising the steps of:

determining a current vehicle position (page 1, lines 15-28);

receiving, as an input, a destination (page 1, lines 15-28);

determining a driving route from the current vehicle position to the destination (page 1, lines 15-28);

storing map data, which is associated with the driving route, in a data buffer (page 1, lines 15-28); and

outputting driving information based on the determined driving route (page 1, lines 15-28),

wherein the driving route has a first road type and a second road type (specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21) and is divided into ranges (fig. 6; page 2, lines 19-30), each range receiving an attribute (L1, L2, etc; page 3, lines 22-24) depending on a classification of the road type (see first fig. 2 compared to fig. 6, general road, page 17, lines 10-29, densely hatched area attributed to road links) within the range, and

wherein the amount of map data stored (page 1, lines 15-28; page 4, lines 6-19) in the data buffer is dependent on the attribute associated with each range of the driving route.

Regarding claim 11, the applicant's admitted prior art discloses a method for operating a navigation device to provide a route from a current position to a destination, said method comprising the steps of:

mounting a map recording medium (compact disc; specification, page 1, line 19) to a disk unit to read map data of a map area that includes the current position and the destination (page 1, lines 15-24), wherein the map data includes the route having a plurality of different road types (specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21; also see first fig. 2

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compared to fig. 6, general road, page 17, lines 10-29, densely hatched area attributed to road links)

reading the map data to a data buffer (page 1, lines 15-28) by a control unit by determining a road type of the plurality of different road types for a route link (fig. 6) of the route according to a road attribute attached to the route link (specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21);

storing the road data according to the road type (specification, page 1, lines 24-28, page 17, lines 10-19);

mounting another recording medium (data buffer 2; specification, page 7, lines 15-21) to the disk unit; and

performing navigation operations using the map data stored within the data buffer (specification, page 1, lines 21-23, page 2, lines 19 to page 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior art in view of Okano et al (6311125).

Regarding claim 4, the applicant's admitted prior art discloses the navigation device according to claim 3, wherein one or a plurality of map units placed near one second remarked

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map unit, are specified by the road attribute checking means and the data storing means is controlled by the road attribute checking means to additionally store data of the map units placed near to the second remarked map unit as the second map data.

On the other hand, the applicant's prior art did not disclose -- a junction---. However, Okano et al (figs. 5-8) teach of a junction in a second remarked map unit. Therefore, it would have been obvious to one of ordinary skill in the art of navigation to modify the applicant's prior art as taught by Okano et al so that a driver can easily identify a junction when traveling for safety.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior art in view of Ihara et al (6336073).

Regarding claim 6 (as best understood), the applicant's admitted prior art discloses the navigation device according to claim 1, wherein the map data providing means is formed of a communication unit, but did not mention the Internet. However, Ihara et al (col, 7, lines 47+, fig. 1) teaches of a map data providing means formed of a communication unit connected with an internet for downloading the map data from an external server (fig. 1) and providing the map data for a pre-reading process means and the data storing means (figs. 1&2). Therefore, it would have been obvious to one of ordinary skill in the art of navigation to modify the applicant's prior art as taught by Ihara et al so that a driver can save memory space for storing navigation data for a large geographical area.

Response to Arguments

8. Applicant's arguments filed 11-04-03 have been fully considered but they are not persuasive for the following reasons:

The applicant is arguing that the prior art does not disclose “the first type of road is indicated by a first road attribute and the second type of road is indicated by a second road attribute, wherein the first type of road differs from the second type of road according to the first road attribute and the second road attribute”. In response, the examiner respectfully disagrees. The above limitations are disclosed in the specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21.

Next, the applicant argues that the prior art does not disclose “the driving route has a first road type and a second road type and is divided into ranges, each range receiving an attribute depending on a classification of the road type within the range, and

wherein the amount of map data stored in the data buffer is dependent on the attribute associated with each range of the driving route. In response, the examiner respectfully disagrees. The prior art discloses ----- the driving route has a first road type and a second road type (specification, page 17, lines 22 to page 18, lines 1-6; page 17, lines 10-21) and is divided into ranges (fig. 6; page 2, lines 19-30), each range receiving an attribute (L1, L2, etc; page 3, lines 22-24) depending on a classification of the road type (see first fig. 2 compared to fig. 6, general road, page 17, lines 10-29, densely hatched area attributed to road links) within the range, and

wherein the amount of map data stored (page 1, lines 15-28; page 4, lines 6-19) in the data buffer is dependent on the attribute associated with each range of the driving route---

Since the applicant's arguments are all based on the above remarks, the examiner believes that all the applicant's arguments have been answered. It is further believed that the rejection is proper and thus stands.

Communication

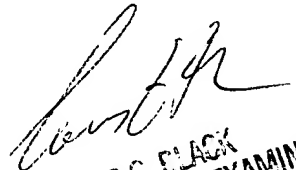
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 703-305-6318. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Black can be reached on 703-305-9707. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ronnie Mancho
Examiner
Art Unit 3663

December 14, 2003


THOMAS C. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3663